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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,613	08/15/2005	Markus Hauf	AGXG-35-PCT-US	2062
7590 Dority & Manning, P.A. P.O. Box 1449 Greenville, SC 29602			EXAMINER JARRETT, RYAN A	
			ART UNIT 2125	PAPER NUMBER
			MAIL DATE 11/16/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/540,613

Applicant(s)

HAUF ET AL.

Examiner

Ryan A. Jarrett

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005 and 18 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 44-85 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 44-85 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>07/18/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 07/18/05 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings are informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "chamber 10" mentioned on page 29. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

The specification incorrectly lists the priority international patent application number as "PCT/EP2003/01338". See pre-amendment to pages 1 and 52 of specification filed 06/23/05. This number is not correct. It should be "PCT/EP2003/013387".

On page 37 line 21, it appears that "50" should be inserted after "block".

On page 42 line 4, it appears that "block 94" should be changed to "block 96".

Appropriate correction is required.

Claim Objections

Claims 44 and 48-51 are objected to because of the following informalities:

In the last line of claim 44, it appears that "at the model" would be better written as "from the model", at least in order to match the language used in line 1.

Claim 48 recites the limitation "the set value" in line 3. There is insufficient antecedent basis for this limitation in the claim. It appears that this limitation should be changed to "a set value".

Claim 49 recites the limitation "the semiconductor wafer" in line 2. There is insufficient antecedent basis for this limitation in the claim. It appears that this limitation should be changed to "a semiconductor wafer".

Claim 50 recites the limitation "the optical properties" in line 2. There is insufficient antecedent basis for this limitation in the claim. It appears that this limitation should be changed to "optical properties".

Claim 51 recites the limitation "the optical properties" in line 2. There is insufficient antecedent basis for this limitation in the claim. It appears that this limitation should be changed to "optical properties".

Claim 51 recites the limitation "the adjustment of the optical properties" in line 3. There is insufficient antecedent basis for this limitation in the claim. It appears that this limitation should be changed to "adjustment of the optical properties".

Claim 51 recites the limitation "the recorded measurement value" in line 4. There is insufficient antecedent basis for this limitation in the claim. It appears that this limitation should be changed to "the detected measurement value".

Claim 56 recites the limitation "the...established emissivity" in line 4. There is insufficient antecedent basis for this limitation in the claim. It appears that the limitation "established emissivity" should be changed to "an established emissivity".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 44-85 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 44 recites the limitation "the corrected predicted value" in line 13. There is insufficient antecedent basis for this limitation in the claim. It appears that this limitation would be better written as "the predicted value corrected by the changeable portion".

Regarding claim 46, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 47, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 48, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 56 recites the limitation "the heat radiation" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 59 recites the limitation "the radiation sources" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 61 recites the limitation "the determination value of the radiation sources" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 63 recites the limitation "the predicted broadband intensity" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 65 recites the limitation "the intensity value" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 68 recites the limitation "the determined intensity value of the radiation sources" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 75 recites the limitation "the radiation sources" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 77 recites the limitation "the rotation speed and/or phase in the model" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 83 and 84 recite the limitation "the condition variable of the condition" in line 1. There is insufficient antecedent basis for this limitation in the claims. It appears that this limitation should be changed to "the condition variable of the system" or just merely "the condition variable".

Regarding claim 85, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

The remaining claims ultimately depend from claim 44 and thus incorporate the same deficiencies.

Allowable Subject Matter

Claims 44-85 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Examiner has made every effort to locate all the deficiencies and informalities in the claims, as noted above. Applicant's assistance is requested in locating any further errors that might have been missed.

The following is a statement of reasons for the indication of allowable subject matter:

de Waard et al. US 6,373,033 (col. 10 lines 8-38, Fig. 5) discloses a method for determining at least one state variable from a model of an RTP system by means of at least one test signal picked off from the RTP system (i.e., the measured quantity), which varies with the state variable to be determined, and a measured quantity predicted using the model (i.e., the predicted value).

Similar methods are shown in Stoddard et al. US 5,895,596 (col. 12 line 59 – col. 13 line 5) and Kee et al. US 5,583,780 (col. 12 line 19 – col. 14 line 3).

However, the prior art of record fails to teach or fairly suggest separately establishing at least the changeable portion by a filter to form a first difference between the changeable portion of the measurement value and the changeable portion of the measurement value predicted by the model; adapting at least one model parameter by feeding the first difference back into the model with the aim of adapting the model behavior to variable system parameters; forming a second difference from the

measurement value and the predicted value, or from the measurement value corrected by the changeable portion and the predicted value corrected by the changeable portion; and correcting a condition of the model system by feeding the second difference back into the model with the aim of bringing the condition of the model system into correspondence with that of the real system, in combination with the remaining features and elements of the claimed invention.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Biersch et al. US 2003/0166317 discloses a method and device for thermally treating objects.

Burke et al. US 5,783,804 discloses a reflectance method for accurate process calibration in semiconductor substrate heat treatment.

Champetier US 6,056,434 discloses an apparatus and method for determining the temperature of objects in thermal processing chambers.

Savas et al. US 6,169,271 discloses a model based method for wafer temperature control in a thermal processing system for semiconductor manufacturing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan A. Jarrett whose telephone number is (571) 272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ryan A. Jarrett
Primary Examiner
Art Unit 2125



11/09/07

RYAN A. JARRETT
PRIMARY EXAMINER